



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/705,533

11/10/2003

Abaneshwar Prasad

100158

5405

29050

7590

06/02/2006

STEVEN WESEMAN
ASSOCIATE GENERAL COUNSEL, I.P.
CABOT MICROELECTRONICS CORPORATION
870 NORTH COMMONS DRIVE
AURORA, IL 60504

EXAMINER

MARCHESCHI, MICHAEL A

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/705,533	Applicant(s) PRASAD, ABANESHWAR	
	Examiner Michael A. Marcheschi	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 13-27 is/are pending in the application.
- 4a) Of the above claim(s) 15-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 13, 14, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's election with traverse of Group I, claims ¹⁻¹⁴~~1-4~~ in the reply filed on 12/28/06 is acknowledged. The traversal is on the ground(s) that a burden is not on the examiner because the inventions are interrelated. The examiner is aware that the inventions are interrelated but a burden is still apparent because the product could still be used in a different process and applicants have not shown clear evidence otherwise. The burden is the different classification and different entire subject matter. However, the non-elected claims will be rejoined, once the product is found allowable.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-8, 13-14 and 26-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The new matter added to the claims is the limitations (1) "and is in form of a non-porous polymer sheet, a cellular polymer foam, or sintered thermoplastic particles", as specifically defined by claim 1, (2) the limitation defined by claim 14 (foam) and (3) the limitations defined by new claims 26-27. It is apparent that these exact limitations are only defined for the prior art polishing pads (i.e. pads that are not based on biodegradable polymers-see section [0004]). The specification never defines these limitations, as the form of the polishing pad according to the

Art Unit: 1755

claimed invention. In other words, the specification does not define that the claimed forms are the forms of the inventive polishing pad (they are only the forms on the prior art pads (non biodegradable pads), thus the skilled artisan would not have clearly envisioned or been appraised of said forms as being applicable to the claimed invention (section [0004] which is one section that applicants state supports the claimed limitations is clearly referring to the prior art polishing pads and does not suggest that the these forms are all applicable to the claimed invention). The only section that refers the forms of the inventive polishing pads in section [0018] and this section states that the inventive pads are porous. This section never refers to the inventive pads as a foam or a sintered thermoplastic particles. Although sintered particles might be envisioned, this passage does not refer to thermoplastic particles and not all of the claimed polymers are generally known as thermoplastics. In addition, the form of the pad is always defined as porous.

The previous rejections based on Makiyama, as the primary reference, have been withdrawn in view of the amendments to the claims. This reference teaches that the material is porous and does not teach a foam article. **However, since the claims contain new matter, as defined above, the previous rejection based on this reference can be reinstated once the new matter is canceled from the claims.**

PREVIOUS ART REJECTIONS

Claims 1-5 and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bonsignore for the same reasons set forth in the previous office action which are incorporated herein by reference.

Claims 1-8, 13-14 and 26 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 10/705,121

Although the conflicting claims are not identical, they are not patentably distinct from each other because the reduction to practice of the copending application would render obvious the instant claims because the copending claims define a polishing pad that contains all of the claimed components and structural limitations.

With respect to the form of the pad, the reference states that the pad is porous and this encompasses any porous material, including a foam.

NEW ART REJECTIONS:

Claims 1, 3-4, 6-8, 13-14 and 26-27 are rejected under 35 U.S.C. 103(a) as obvious over Shimagaki et al. (857).

The reference teaches in sections [0063], [0073]-[0081] and claim 3, a polishing pad comprising a resin (polyurethane, etc.) and substantially water insoluble polymer (cross linked polysaccharide). Claim 18 defines that inorganic particles (i.e. metal oxide –see section [0087] can also be used (fixed abrasive pad or particles dispersed in the matrix-see sections [0084] – [0088]). The water insoluble polymer making up the pad is set forth to be a sheet like material (i.e. film like sheet (this implies a non porous sheet, since the reference does not even mention porosity or porous in conjunction with this film sheet) or sponge like material (porous material)-see section [0063]).

The reference teaches a polishing pad which comprises all of the claimed

Art Unit: 1755

components since a polysaccharide material is used and this is one of the claimed biodegradable polymers. With respect to the polishing pad being in the form of a non porous sheet, assuming not to be new matter, the reference implies that the pad is made up of a laminated or single film like sheet (free from open pores) and the broad interpretation of this makes obvious a non porous polymer sheet because the reference does not define that it is porous. With respect to the polishing pad being in the form of a cellular foam, assuming not to be new matter, the reference implies that the pad is made up of a laminated or single sponge like sheet and the broad interpretation of a sponge makes obvious a cellular foam, especially since applicants do not define otherwise. A foam, solid can broadly be considered a sponge like material because both are cellular and compressible. In addition, during processing of the reference pad, it is the examiners position that this spongy structure will still be apparent. With respect to the polishing pad being in the form of a sintered (thermally fused) particles, section [0070] states that the mixture is can also be formed by melt extrusion or thermal compression and it is the examiners position that this broadly makes obvious, in the broad sense, sintering (thermally fusing) particles together absent evidence to the contrary.

Applicant's arguments filed 12/28/05, with respect to Bonsignore and the ODP (obvious double patenting) rejections, have been fully considered but they are not persuasive.

With respect to the arguments based on the newly added limitations. Applicant states that sections 0004 and 0018-0019 support the newly added limitations. This is not persuasive because, as clearly defined in the new matter rejection above, said passages do not define that the

Art Unit: 1755

claimed forms are the forms of the inventive polishing pad (they are only the forms on the prior art pads (non biodegradable pads).

With respect to applicant's arguments based on Bonsignore, it appears that applicant's argument is that this reference does not teach that the article is in one of the claimed foams. The examiner disagrees because the reference clearly teaches that the article is in sheet form (column 5, line 16), thus it is a polymer sheet. With respect to the non-porous nature of the sheet, it is the examiners position that this is inherent or expected in the article of the reference because the reference does not even mention porosity or porous, thus it can be reasonably envisioned that the sheet is non porous.

With respect to the ODP rejection, applicants provide no arguments for this rejection.

With respect to applicant's arguments based on Makiyama, as the primary reference, any rejections over this reference, as the primary reference, have been withdrawn (see above).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1755

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/06
MM

Michael A Marcheschi
Primary Examiner
Art Unit 1755